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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,127	05/19/2006	Shigeo Hirose	12088/044001	7424
22511 7590 12/09/2008 OSHA LIANG I.L.P. TWO HOUSTON CENTER 909 FANNIN, SUITE 3500 HOUSTON, TX 77010				
EXAMINER				
BELLINGER, JASON R				
ART UNIT		PAPER NUMBER		
3617				
NOTIFICATION DATE		DELIVERY MODE		
12/09/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/580,127

Applicant(s)

HIROSE ET AL.

Examiner

Jason R. Bellinger

Art Unit

3617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Drawings

1. The drawings were received on 29 August 2008. These drawings are approved.

Claim Objections

2. Claim 1 is objected to because of the following informalities: The term "being" should be removed after the term "holes" in line 5 and the term "recesses" in line 13, for grammatical clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 are indefinite due to the fact that it is unclear what is actually being claimed by the phrase "of a plate".

5. The term "thin" in claims 1-2 is a relative term which renders the claims indefinite. The term "thin" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. No qualitative or quantitative limitations have been provided to clearly define this term.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-3, 6, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Plante (FR 1,013,382).

Burns shows a crawler belt 13 having an endless high-tensile-strength belt 33 and a rubber (i.e. elastic material) main belt body 41 attached to the outer periphery of the high tensile strength belt 33. The high tensile strength belt 33 includes engagement holes (generally at 49) circumferentially arranged at even intervals, while the main belt body 41 includes "escape" recesses (generally at 49) formed at locations corresponding to the holes of the high tensile strength belt 33. As best understood, the high tensile strength belt 33 is exposed, includes a steel belt (i.e. steel reinforcing belts), and is "of a plate" structure.

Burns shows the use of a plurality of wheels having generally cylindrical surfaces. Burns also shows the high tensile strength belt 33 directly contacting the outer peripheral surface of the wheels. Burns shows a plurality of tread lugs 43 formed on the outer periphery of the belt main body 41. The lugs 43 extend in the width direction of the belt main body 41, and have a planar bent shape at at least one point. Burns does not specify that the height of the tread lugs 43 is not less than 3 times and not greater than 7 times the thickness of the lugs 43, one of ordinary skill in the art at the time of the

invention would find it obvious to form the lugs with a height to thickness ratio suitable for the environment in which the crawler will be used, dependent upon traction, etc. demands. The belt main body 41 forms a base part that is attached all around the outer periphery of the high tensile strength belt 33 (namely at 49).

Burns does not show the high tensile strength belt 33 being "thin" compared to the base part of the belt main body 41. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the high tensile strength belt of Burns thinner than the belt main body, as an equivalent arrangement, which would yield predictable results (namely, maintaining the weight and load bearing ratios of the belt main body compared to the high tensile strength belt to withstand fatigue and failure during use).

Burns does not show the driving wheel having circumferentially arranged and evenly spaced projections that engage the holes of the crawler belt by entering both the holes of the high tensile strength belt and the "escape" recesses of the belt main body. In Figure 3, Plante teaches the use of an endless track including a drive wheel having projections that engage recesses 8 in the endless track. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the crawler of Burns with the drive wheel of Plante, as a substitute equivalent drive wheel, to increase the driving force transmitted to the belt.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Plante (FR 1,013,382) as applied to claims 1-3, 6, and 10-12 above, and further

in view of Tangorra (GB 2,138,534). Burns as modified by Plante does not show the engagement holes of the high tensile strength belt having a circular shape, with the projections of the wheel being generally semi-spherical.

Tangorra teaches the use of a crawler belt 1 having circular holes 6, and wheels 2-3 having semi-spherical projections. Therefore, from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the holes and projections from corresponding circular shapes, in order to reduce the stress profile on the crawler when the projections engage the holes, thus reducing wear on the belt.

Allowable Subject Matter

9. Claim 5, as best understood, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 29 August 2008 have been fully considered but they are not persuasive. The Applicant argues that the base part of the belt main body of Burns is only attached to the high tensile strength belt at selected locations and not "all around" the outer periphery thereof. However, it should be noted that the limitation of the base part being "attached all around an outer periphery" of the high tensile strength belt does not preclude the arrangement shown in Burns. Namely, the base part formed by the belt main body 41 is attached around the outer periphery of the high tensile

strength belt 33. The fact that the inner periphery of the belt main body 41 of Burns does not completely contact the entire outer periphery of the high tensile strength belt 33 is not precluded by the above limitation.

11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, the Applicant argues that Burns does not show engagement projections of the wheel contacting the "escape" recesses" of the endless belt part. However, it should be noted that the Plante (FR 1,013,382) reference was used to teach this limitation.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason R Bellinger/
Primary Examiner
Art Unit 3617

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